

**REMARKS**

Claim 1 has been amended to delete an inadvertent typographical error. The extra term "particles" has been deleted.

Claims 1-27 are currently pending for examination.

**Rejection of Claims 1-9, 11, and 13-18 under 35 U.S.C. §103(a)**

Claims 1-9, 11, and 13-18 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Chabrier, *et al.*, U.S. Patent Number 4,626,306 ("Chabrier").

Although Chabrier appears to disclose a method of making a fibrous material using a bath of resin particles, nowhere in Chabrier is there a disclosure or suggestion of using an emulsion comprising polymer particles, let alone a stable emulsion comprising polymer particles, i.e., an emulsion in which the particles remain in suspension when free of exposure to agitation conditions, such as stirring or shaking (see, for example, page 8, lines 11-18 of the instant specification). Instead, in Chabrier, the dispersion is unstable, and air or pressure is thus used to fluidize the particles. See, for example, column 4, lines 46-50 or lines 64-68. Thus, Chabrier does not disclose or suggest a stable emulsion. Thus, it is believed that independent claim 1 is not unpatentable over Chabrier, and it is therefore respectfully requested that the rejection of claim 1 be withdrawn. Dependent claims 2-9, 11, and 13-18 depend, either directly or indirectly, from claim 1, and it is respectfully requested that the rejection of these claims also be withdrawn for at least the above-mentioned reasons.

**Rejection of Claims 19-22 under 35 U.S.C. §103(a)**

Claims 19-22 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Dyksterhouse, *et al.*, U.S. Patent Number 4,894,105 ("Dyksterhouse").

Although Dyksterhouse describes the insertion of thermoplastic polymer particles between adjacent fibers of the fibrous materials (see, e.g., column 6, lines 44-48), nowhere in Dyksterhouse is there a disclosure or suggestion that the thermoplastic polymer particles may penetrate substantially all ends of the individual fibers. Instead, in Dyksterhouse, "substantially void-free" refers to the fact that, between adjacent fibers, there are no voids. Thus, independent

claim 19 is believed to be patentable over Dyksterhouse, and it is therefore respectfully requested that the rejection of claim 19 be withdrawn. Dependent claims 20-22 depend from claim 19, and are believed to be patentable for at least the same reasons. Withdrawal of the rejection of these claims is also requested.

Rejection of Claims 10-12 under 35 U.S.C. §103(a)

Claims 10 and 12 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Chabrier in view of Dyksterhouse.

Claims 10 and 12 each depend from claim 1. For at least the reasons explained above with respect to the rejection under §103(a) in view of Chabrier alone, the premise of the rejection of claim 1 is believed to be incorrect. Accordingly, while Applicant does not concede that there would have been any suggestion or motivation to combine Chabrier and Dyksterhouse in the manner suggested in the Office Action, the present rejection cannot stand, regardless. Thus, withdrawal of the rejection of claims 10 and 12 is respectfully requested.

Rejection of Claims 23-27 under 35 U.S.C. §103(a)

Claims 23-27 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Chabrier.

Claims 23 and 24 each depend from claim 19, which has not been rejected as being unpatentable over Chabrier. Thus, the basis for the rejection of these claims is unclear. As it is not seen where in Chabrier is there a disclosure or suggestion of particles penetrating substantially all ends of the individual fibers, it is believed that claims 23 and 24 are patentable over Chabrier. It is thus respectfully requested that the rejection of claims 23 and 24 be withdrawn.

With respect to independent claim 25, it is not seen where in Chabrier is there a disclosure or suggestion of a polymer matrix that embeds fibrous segments, including the ends of individual fibers of the fibrous segments. Chabrier discloses a mechanical system to impregnate fibers (e.g., rollers 15, 16 and 17, see column 4, lines 21- 22), but such a process, a purely mechanical system, will not inherently result in a polymer matrix embedding the ends of

Serial No.: 10/007,055  
Conf. No.: 6201

- 8 -

Art Unit: 1774


individual fibers. Accordingly, it is respectfully requested that the rejection of independent claim 25 be withdrawn. Claims 26 and 27 depend from claim 25, and are believed to be allowable for at least the above-identified reasons. Withdrawal of the rejection of claims 26 and 27 is therefore also respectfully requested.

### CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's representatives at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,  
*David A. Evans, Applicant*

By:   
\_\_\_\_\_  
Timothy J. Oyer, Ph.D., Reg. No. 36,628  
Tani Chen, Sc.D., Reg. No. 52,728  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2211  
Telephone: (617) 720-3500

Docket No.E0353.70005US00  
Date: June 21, 2004  
x06/21/04 802234